

## BESURE Study 2004-2013: Baltimore site of National HIV Behavioral Surveillance (NHBS)

The National HIV Behavioral Surveillance (NHBS) system is a CDC-funded project conducted in 21 cities in the United States, including Baltimore. The purpose is to measure HIV prevalence, HIV risk behaviors, HIV testing behaviors, and exposure to prevention services over time among persons at high risk for infection. NHBS has three cycles focusing on different groups: men who have sex with men (MSM), injection drug users (IDU), and heterosexuals at risk of HIV infection (HET). Information from NHBS guides prevention and HIV counseling and testing services in Baltimore. It also helps guide and improve overall HIV/AIDS surveillance, and provide a better understanding of trends in HIV infection in Baltimore and throughout the United States.

The Maryland Department of Health and Mental Hygiene receives funding from the U.S. Centers for Disease Control and Prevention to participate in the National HIV Behavioral Surveillance (NHBS) System and to collect data for the Baltimore-Towson metropolitan area. In Baltimore, the NHBS is performed as a collaboration between the Maryland Department of Health and Mental Hygiene and the Johns Hopkins Bloomberg School of Public Health and operates as the BEhavioral SURveillance REsearch Study or BESURE.

### Survey methods and sample characteristics, BESURE 2004-2013

	Wave 1	Wave 2	Wave 3
<b>Men who have sex with men (MSM)</b>	<b>Jun 2004 – Apr 2005</b>	<b>July – Oct 2008</b>	<b>Aug – Dec 2011</b>
Data collection method	Venue-based	Venue-based	Venue-based
Total MSM in past year recruited*	645	448	404
HIV prevalence	37.7%	37.5%	42.6%
Prevalence of unrecognized HIV infection <sup>^</sup>	58.4%	78.4%	67.3%
<b>Injection drug users (IDU)</b>	<b>Aug 2006 – Jan 2007</b>	<b>Sept – Dec 2009</b>	<b>Aug – Dec 2012</b>
Data collection method	Respondent Driven Sampling	Respondent Driven Sampling	Respondent Driven Sampling
Total IDU in past year recruited*	539	507	617
HIV prevalence	11.9%	16.2%	23.3%
Prevalence of unrecognized HIV infection <sup>^</sup>	50.0%	41.2%	27.8%
<b>Heterosexuals at high risk (HRH)</b>	<b>Jul – Oct 2007</b>	<b>Sept – Dec 2010</b>	<b>Sept – Dec 2013</b>
Data collection method	Venue-based	Respondent Driven Sampling	Respondent Driven Sampling
Total recruited *	332	376	505
HIV prevalence	3.9%	6.1%	6.5%
Prevalence of unrecognized HIV infection <sup>^</sup>	83.3%	65.2%	36.4%

\*Complete survey and HIV test

<sup>^</sup> No. of people who did not know they had HIV infection divided by the no. of people who tested HIV-positive

Note: Differences in HIV prevalence and unrecognized infection may be due to sample differences across waves.

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For more info: <http://phpa.dhmh.maryland.gov/OIDEOR/CHSE/SitePages/behavioral-surveillance.aspx>



## Publications

### National HIV Behavioral Surveillance

- 2013 MMWR HIV Infection Among Heterosexuals at Increased Risk - United States, 2010. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6210a2.htm?s\\_cid=mm6210a2\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6210a2.htm?s_cid=mm6210a2_e)
- 2012 MMWR Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 U.S. dependent areas—2010. [http://www.cdc.gov/hiv/library/reports/surveillance/2010/surveillance\\_Report\\_vol\\_17\\_no\\_3.html](http://www.cdc.gov/hiv/library/reports/surveillance/2010/surveillance_Report_vol_17_no_3.html)
- 2012 MMWR HIV infection and HIV-associated behaviors among injection drug users – 20 cities, United States, 2009. [www.cdc.gov/mmwr/preview/mmwrhtml/mm6108a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6108a1.htm)
- 2011 MMWR HIV Risk, Prevention, and Testing Behaviors Among Men Who Have Sex With Men. National HIV Behavioral Surveillance System, 21 US Cities, United States, 2008. <http://www.cdc.gov/mmwr/PDF/ss/ss6014.pdf?source=govdelivery>
- 2011 MMWR HIV Testing Among Men Who Have Sex with Men -- 21 Cities, United States, 2008 [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6021a3.htm?s\\_cid=mm6021a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6021a3.htm?s_cid=mm6021a3_w)
- 2011 MMWR Characteristics Associated with HIV Infection Among Heterosexuals in Urban Areas with High AIDS Prevalence - 24 Cities, United States, 2006-2007 [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6031a1.htm?s\\_cid=mm6031a1\\_e&source=govdelivery](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6031a1.htm?s_cid=mm6031a1_e&source=govdelivery)
- 2010 MMWR Prevalence and Awareness of HIV Infection Among Men Who Have Sex With Men — 21 Cities, United States, 2008 [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5937a2.htm?s\\_cid=mm5937a2\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5937a2.htm?s_cid=mm5937a2_w)
- 2009 MMWR HIV-Associated Behaviors Among Injecting-Drug Users — 23 Cities, United States, May 2005–February 2006 <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5813a1.htm>
- 2006 MMWR Human Immunodeficiency Virus (HIV) Risk, Prevention, and Testing Behaviors — United States, National HIV Behavioral Surveillance System: Men Who Have Sex with Men, November 2003–April 2005 <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5506a1.htm>
- 2005 MMWR HIV Prevalence, Unrecognized Infection, and HIV Testing Among Men Who Have Sex with Men — Five U.S. Cities, June 2004–April 2005 <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5424a2.htm>

### BESURE

- German, D., Linton, S., Cassidy-Stewart, H., Flynn, C. Using Baltimore HIV behavioral surveillance data for local HIV prevention planning. *AIDS and Behavior*. (in press). PubMed [PMID:23681696](https://pubmed.ncbi.nlm.nih.gov/23681696/).
- Maulsby C, Sifakis F, German D, Flynn CP, Holtgrave D. (2013). HIV risk among men who have sex with men only (MSMO) and men who have sex with men and women (MSMW) in Baltimore. *Journal of Homosexuality*. 60(1):51-68. [PMID: 23241201](https://pubmed.ncbi.nlm.nih.gov/23241201/).
- Maulsby C, Sifakis F, German D, Flynn CP, Holtgrave D. (2012). Differences and similarities in HIV testing among men who have sex with men and women (MSMW) and men who have sex with men only (MSMO). *Open AIDS Journal*, 6: 53-9. [PMID: 22833774](https://pubmed.ncbi.nlm.nih.gov/22833774/).
- Villanti A, German D, Flynn CP, Sifakis F, Holtgrave D. (2012). Smoking, self-reported HIV, and HIV risk behaviors in a respondent driven sample of injection drug users in Baltimore: The BeSure Study. *AIDS Education and Prevention*, 24(2): 132-47. PubMed [PMID: 22468974](https://pubmed.ncbi.nlm.nih.gov/22468974/).
- Maulsby, C, Sifakis F, German D, Flynn CP, Holtgrave D. (2011). Partner characteristics and undiagnosed HIV seropositivity among men who have sex with men only (MSMO) and men who have sex with men and women (MSMW) in Baltimore. *AIDS and Behavior*, 16(3): 543-53. PubMed [PMID: 21964976](https://pubmed.ncbi.nlm.nih.gov/21964976/).
- German D, Sifakis F, Maulsby C, Towe VL, Flynn CP, Latkin CA, Celentano DD, Hauck H, Holtgrave DR. (2011). Persistently high prevalence and unrecognized HIV infection among men who have sex with men in Baltimore: The BESURE Study. *J Acquir Immune Defic Syndr*. 57(1): 57-87. PubMed [PMID:21297479](https://pubmed.ncbi.nlm.nih.gov/21297479/).
- Gindi RM, Sifakis F, Sherman SG, Towe VL, Flynn C, Zenilman JM. The Geography of Heterosexual Partnerships in Baltimore City Adults. *Sex Transm Dis*. 2011 Apr;38(4):260-6. PubMed [PMID: 20966827](https://pubmed.ncbi.nlm.nih.gov/20966827/).
- Towe VL, Sifakis F, Gindi RM, Sherman SG, Flynn C, Hauck H, Celentano DD. Prevalence of HIV infection and sexual risk behaviors among individuals having heterosexual sex in low income neighborhoods in Baltimore, MD: the BESURE study. *J Acquir Immune Defic Syndr*. 2010 Apr 1;53(4):522-8. PubMed [PMID: 19875965](https://pubmed.ncbi.nlm.nih.gov/19875965/).

